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PATENT APPLICATION  
PO-7517  
PS-1132

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICATION OF	)	
	)	GROUP NO.:1711
ADAM GRONOWSKI ET AL	)	
	)	EXAMINER: OLGA ASINOVSKY
SERIAL NUMBER: 10/676,916	)	
	)	
FILED: OCTOBER 1, 2003	)	
	)	
TITLE: PEROXIDE CURABLE COMPOUNDS	)	
BASED ON BUTYL-LIKE POLYMER	)	
WITHOUT CONJUGATED ALIPHATIC	)	
DIENES IN ITS COMPOSITION	)	

**DECLARATION UNDER 37 CFR 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Adam Gronowski, of Sarnia, Ontario, Canada, declare as follows:

1. I studied chemistry at the N. Copernicus University and obtained a Ph.D. degree in 1983.
2. I am employed by Lanxess Inc. (successor to Bayer Inc.), in Sarnia, Ontario, Canada as a Senior Research Chemist.
3. I am one of the named inventors of the above-identified United States patent application.

4. I performed or supervised the experiments described in the above-identified United States patent application and disclosed herein.

5. Polymer 3 discussed herein was prepared in the same manner as Polymer 2 in U.S. Patent Application No. 10/676/916 (pages 15 and 16). However, Polymer 3 did not include 2,4,4-trimethyl-1-pentene (chain transfer agent) in the monomer feed, and the amount of the DVB was 1.0 ml. The maximum temperature rise observed during the reaction was 16.9 °C. The yield of the reaction was 50.5 % and solubility of the rubber was 25.4 %.

6. Polymer 3 was then compounded as Polymers 1 & 2 in U.S. Patent Application No. 10/676/916 and cured. The following results were recorded for the cured compound containing Polymer 3: Shore A2 hardness = 29 points, ultimate tensile = 1.80 MPa, ultimate elongation = 225 %, stress@ 200 % = 1.64 MPa and delta torque = 2.68 (dNm).

7. As illustrated with the above results, the stress-strain properties of the Compound 3 (containing Polymer 3) do not match those of the Compound 2 (containing Polymer 2) and the solubility of the Compound 3 was 25.4% (indicating a gel content around 75 %) vs. 94.7 % (indicating very little gel) for Compound 2 (according to the present invention). Therefore, Applicants submit, one skilled in the art would recognize the polymers of the present invention, containing a strong chain transfer agent in a reactor during polymerization, are of a different character compared to the polymers described by Walker et al. (US 3,584,080).

8. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-identified United States patent application or any patent issuing there from.

Signed at **Sarnia, Ontario, Canada**, this 13<sup>th</sup> day of January, 2005.

Adam Gronowski  
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